the present embodiment, a method of processing is used wherein the minimum free capacity necessary for the transfer is guaranteed by repeating step 3B and step 3C.

For example, in step 3A, the control unit 10 advances the processing to step 3B in the case that the capacity in each memory in the executive memory 17 necessary for transferring the new pattern files is insufficient.

Next, in step 3B, the control unit 10 deletes pattern files stored in the executive memory 17 in each memory in the order of ascending order of use frequency of the pattern files, that is, the control device deletes the pattern files stored in the part of the executive memory that stores the pattern files having the lowest use frequencies.

In addition, in step 3C, the control unit 10 carries out a determination of whether or not the capacity necessary for transferring the new files has been guaranteed as a result of deleting the pattern files in the executive memory 17 having the lowest use frequencies.

At this time, the control unit 10 advances the processing to step 3D in the case that a sufficient capacity for transferring the new pattern files could be guaranteed, while in contrast, returns the processing to step 3B in the case that a capacity sufficient for transferring the new pattern files could not be guaranteed.

This means that the control unit 10 guarantees the capacity necessary for transferring the new pattern files to the executive memory by repeatedly carrying out the processing of step 3B and step 3C in the case that a sufficient capacity for transferring the new pattern files could not be guaranteed.

Next, in step 3D, the control unit 10 distributes the new pattern files necessary for the test of the semiconductor by transferring them from the buffer memory 13 to the executive memory 17.

Next, in step 3E, the control unit carries out the test based on the pattern data in the transferred pattern files after the transfer of the new pattern files necessary for the

test of the semiconductor to the executive memory 17 had been completed.

According to the embodiment described above, in the case that a test of a semiconductor is carried out in a semiconductor test apparatus based on pattern data, the use frequencies of pattern data is extracted based on the results of use of a specific number of pattern data, and pattern files having pattern data are transferred from the buffer memory 13 to be stored in the executive memory 17 beginning with the pattern files having a high use frequency. Thereby, the number of times that the pattern file having the new pattern data is read can be reduced, and compared to the conventional method of the transfer processing of pattern files, the throughput of the semiconductor test can be greatly improved.

In addition, according to the embodiment described above, when newly necessary pattern files are transferred to the executive memory 17, in the case that the capacity of the executive memory 17 is insufficient, unlike the conventional technology which initializes the executive memory 17, only the pattern files stored in the part of the executive memory 17 that have a low use frequencies are deleted. Thereby, compared to initializing the executive memory 17 and transferring the new pattern files to the executive memory, the transfer time for the pattern files can be greatly reduced.

Furthermore, because the use frequency of each pattern file is carried out by sampling of the semiconductors that will actually serve as test objects, and because the use frequency of each pattern file is extracted taking into account the defect rate for each set of pattern data for each semiconductor, it can be applied to the test of a plurality of semiconductors.

In addition, the updating of the control software to attain this object is easy to maintain because it can be completed simply by updating a minimum algorithm that includes producing the pattern file use frequency table and the updating the transferred

portion of the pattern files.

Above, an embodiment of the present invention was described in detail referring to the figures, but the concrete structure is not limited by this embodiment, and design modifications of the present invention are possible that do not depart from the spirit thereof.

According to the present invention, in a semiconductor test apparatus, pattern files can be stored in the executive memory beginning with those that have a high use frequency, and in the case that the capacity of the executive memory is insufficient, only pattern files in the part of the memory having the pattern files with a low use frequency are deleted.

Furthermore, the use frequency is extracted by sampling the semiconductors that are actually test objects by taking into account their defect rate, and can be applied to the testing of various semiconductors. In addition, the updating of the control software to attain this object is easy to maintain because this can be completed simply by updating a minimum algorithm that includes updating the production of the pattern file use frequency table and the transferred portion of the pattern files.

As a result, according to the present invention, in a semiconductor test apparatus, the transfer time for pattern files can be greatly reduced, and the throughput of the semiconductor testing can be greatly increased.